

services."<sup>45</sup> The Commission has employed nationwide licensing in connection with various radio-based services, including nationwide paging service,<sup>46</sup> 220-222 MHz private land mobile radio service,<sup>47</sup> digital electronic message service,<sup>48</sup> and air to ground service.<sup>49</sup> In addition, the Commission has authorized nationwide data communications services using 900 MHz SMR frequencies.<sup>50</sup> The Commission has also proposed to issue 900 MHz SMR nationwide licenses.<sup>51</sup> Moreover, the Commission has recently tentatively granted a pioneer's preference to Mobile Technologies, Inc. for a nationwide narrowband paging PCS authorization in the 900 MHz band, if nationwide licenses for 900 MHz narrowband PCS are employed.<sup>52</sup> Finally, a recent filing by Fleet Call, Inc. seeks authorization to implement a nationwide digital SMR network.<sup>53</sup> Internationally, nationwide PCS licensing

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<sup>45</sup> Report and Order, 6 FCC Rcd 2356, para. 34, (1991) (220-222 MHz Private Land Mobile Radio Service).

<sup>46</sup> Nationwide Paging, Memorandum Opinion and Order, 93 FCC 2d 908 (1983).

<sup>47</sup> Report and Order, 6 FCC Rcd 2356 (1991) at ¶34 (220-222 MHz Private Land Mobile Radio Service).

<sup>48</sup> Digital Termination Systems, First Report and Order, 49 RR 2d 509, 514 (1981).

<sup>49</sup> Report and Order, 5 FCC Rcd 3861, 3869 (1990).

<sup>50</sup> See American Mobile Data Communications, 4 FCC Rcd 3802 (1989).

<sup>51</sup> Specialized Mobile Radio (900 MHz), 4 FCC Rcd 8673 (1989).

<sup>52</sup> Notice at 5735-6.

<sup>53</sup> Fleet Call Inc. and Smart SMR, Inc. Request for Waiver of Section 90.631(e) (Filed October 12, 1992).

has also been the choice of many governments including the United Kingdom, Germany, and Australia.<sup>54</sup>

A. The Arguments Against Nationwide PCS Licensing Are Flawed.

Commenters opposed to licensing PCS service on a nationwide basis suggest that nationwide licensing will: (i) limit entry and minimize innovation and reduce the diversity of service;<sup>55</sup> (ii) make licensees less responsive to local and specialized needs;<sup>56</sup> (iii) delay deployment of PCS service to rural areas;<sup>57</sup> (iv) make the obtaining of financing more difficult;<sup>58</sup> and (v) give PCS licensees an unfair competitive advantage over cellular licenses with their smaller markets.<sup>59</sup> In addition, those commenters who favor using MSAs and RSAs for PCS licensing suggest that it is

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<sup>54</sup> In deciding to issue a nationwide license, Austel concluded that a national structure would be the most straightforward to implement, minimize regulatory intervention, promote certainty in the industry and deliver the best benefits to consumers. Sean McNamara, Australia: Digital Cellular Network Competition Heats Up, Newsbytes News Network, April 17, 1992.

<sup>55</sup> See Comments of GTE at 34 n.30; Comments of Viacom International at 17; Comments of Southwestern Bell at 22-23; Comments of CTIA at 51; and Comments of McCaw Cellular Communications at 15.

<sup>56</sup> See Comments of BellSouth at 32; Comments of Southwestern Bell at 22-23; Comments of Centel at 12.

<sup>57</sup> See Comments of NYNEX at 24; Comments of BellSouth at 32; Comments of CTIA at 36; Comments of Vanguard Cellular Systems, Inc. at 9-11; and Comments of McCaw Cellular Communications at 16.

<sup>58</sup> See Comments of Comments of BellSouth at 32; and Comments of New York Department of Public Service at 8.

<sup>59</sup> See Comments of Alltel at 14-15; Comments of BellSouth at 34-36; and Comments of Southwestern Bell at 21.

better to let competitive forces determine the proper size for PCS systems by using MSAs and RSAs as building blocks to form larger systems.<sup>60</sup> TWT believes these concerns are misplaced, particularly in the context of its proposal to license one PCS provider on a nationwide basis and one PCS provider on the basis of MTAs.

(1) Entry and Diversity Will Not Be Harmed.

Some commenters argue that nationwide licensing means limited entry and, consequently, lessened diversity and innovation or that a nationwide licensee will not tailor its service offerings to the localized communications needs of small market areas.<sup>61</sup> These arguments have been considered by the Commission in other contexts. For example, the Commission has previously addressed the concerns that nationwide licensing would limit entry in the context of adopting such licensing in the Digital Electronic Message Service. There, the Commission resolved the matter in a manner consistent with the PCS licensing proposal made by TWT in this proceeding -- by complementing a nationwide license with regional licenses.<sup>62</sup> Similarly, the concerns over lessened diversity and innovation were addressed by

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<sup>60</sup> See Comments of GTE at 33 n.28; Comments of Southern New England Telephone at 7; Comments of the U.S. Department of Justice at 21; and Comments of CTIA at 54-56.

<sup>61</sup> See, e.g. Comments of BellSouth at 38; Comments of CTIA at pages 52-54; Comments of Centel at 12; and Pacific Telesis Group at 24.

<sup>62</sup> Digital Termination Systems, First Report and Order, 49 RR 2d 509 (1981).

the Commission in proposing a nationwide service in the 220-222 MHz band. The Commission stated that "reservation of some of the 220-222 MHz band channels for nationwide assignment may promote improvements in narrowband technologies."<sup>63</sup> The Commission further noted that nationwide assignments could provide licensees with an incentive to invest in the technology to maximize spectral efficiency and that "nationwide assignments are a critical means of achieving the greater spectrum efficiency we expect from narrowband technology research and development."<sup>64</sup> TWT submits that the Commission should expect no less from PCS technology research and development.

More specifically, as a new entrant into an already existing mobile communications marketplace, a PCS provider will naturally seek to differentiate itself from its competitors, including both other PCS providers and other services such as cellular and enhanced SMR. This provides the nationwide PCS operator with a strong incentive to provide new and diverse service offerings. The capital intensive infrastructure of PCS also creates incentives for a nationwide licensee to use new cost and spectrum efficient technologies to counter upward cost-based pressure on rates. Nationwide and large regional markets also create tremendous incentives for equipment manufacturers to enter into, compete and produce the best possible product at the lowest

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<sup>63</sup> 220-222 MHz Private Land Mobile Radio Service, Notice of Proposed Rulemaking, 4 FCC Rcd 8593 (1989) at ¶16.

<sup>64</sup> Id. at ¶34.

possible price. In addition, by creating a national market for equipment, a nationwide license creates a single platform (in effect, a de facto PCS standard) that can be used by equipment manufacturers and service providers to develop new and diverse services and products faster, and at lower cost, which can then be marketed and sold nationally.<sup>65</sup>

In addition, many PCS services may not be economically feasible for a PCS operator limited to an MSA or RSA. As the Public Service Commission of Wisconsin noted in its comments, "Aggregation of demand for specialized services might be more feasible in large trading area territories than in a LATA" (or an MSA or RSA).<sup>66</sup>

(2) Regional and Local Needs Will Be Met.

Furthermore, a PCS provider will have every incentive to respond to regional and local pockets of demand for specialized services in order to maximize revenues and recover costs as quickly as possible. The Commission employed nationwide licensing for commercial systems in the 220-222 MHz service to "provide a nationwide service to meet the various and diverse

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<sup>65</sup> The adoption of different standards by the regional licensees does not diminish the value of having a national provider. In fact, by adopting different technical standards, competing systems will have different strengths which may increase the diversity of services offered while still providing at least one system where a customer can use his equipment anywhere in the country.

<sup>66</sup> Comments of Public Service Commission of Wisconsin at 13.

requirements of a number of entities."<sup>67</sup> Moreover, the commenters that raise this concern do not document their premise that local demand for PCS will differ significantly from regional or nationwide demand in terms of types of services. Even cellular operators, as common carriers, offer a standard menu of services, albeit using different labels, regardless of the service area involved. A nationwide PCS licensee would face competition on a national, regional and local level from other providers of mobile communications services, whether they be PCS licensees, cellular or enhanced SMR system operators. A nationwide licensee will have to react to the marketplace maneuvers of its regional PCS and other service competitors in the same way that regional cellular competitors react to changes in the rates, terms or conditions of the service offerings of a localized competitor.

TWT submits that local needs are adequately addressed by having both a nationwide licensee and a regional licensee serving the locale in addition to cellular and other service providers. Supporters of MSAs and RSAs who suggest that smaller service areas will better meet the needs of local markets and thereby better promote localism, not only overstate the relevance of the

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<sup>67</sup> 220-222 MHz Private Land Mobile Radio Service, 4 FCC Rcd at ¶36.

concept of localism to non-broadcast services,<sup>68</sup> but ignore the natural ties between metropolitan and adjoining areas.<sup>69</sup>

(3) Deployment to Rural Areas May be Faster.

Contrary to the concerns of some commenters, nationwide and regional licensing may actually speed deployment of PCS, including to rural areas. With respect to the issue of expediting service to the public in both urban and rural areas, it is noteworthy that the Commission has already acknowledged that it has "granted nationwide licenses where such grants would expedite delivery of a new and innovative service to the public."<sup>70</sup> As further recognized by the Commission in the context of licensing 220-222 MHz facilities, "operators of commercial systems are best situated to develop and implement narrowband systems quickly, stimulated by the profit motive."<sup>71</sup>

Nationwide and MTA licenses could be granted in significantly less time than it would take to grant licenses for 734 MSAs and RSAs. Thus, based on the fewer overall number of licenses to be issued alone, a PCS licensing scheme consisting of

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<sup>68</sup> Cellular Radio Lotteries, 98 FCC 2d 175, 180 n.16 (1984) and Orange County Radiotelephone Service, Inc., 5 FCC 2d 848, 850 (1966).

<sup>69</sup> See Comments of APC at 23. (Noting the similarity between MTAs and the Consolidated Metropolitan Statistical Areas developed by the Office of Management and Budget based on the 1990 Census.)

<sup>70</sup> 220-222 MHz Private Land Mobile Radio Service, 4 FCC Rcd at para. 16 (citing Digital Electronic Message Service and nationwide paging as examples).

<sup>71</sup> 220-222 MHz Private Land Mobile Radio Service, 4 FCC Rcd at para. 36.

one nationwide authorization and one authorization per MTA will expedite service to the public relative to a licensing scheme based on 734 MSAs and RSAs. Some commenters suggest that MSAs and RSAs, as modified by the Commission in the early 1980s, are time-tested markets for wireless communications services whereas larger areas would have to be modified by the Commission before they could be used for licensing.<sup>72</sup> However, MSAs were designed over a decade ago based on 1980 census data and there have been significant changes in many of these markets since then.<sup>73</sup> Moreover, significant consolidation of MSAs and RSAs has occurred in the cellular arena. This suggestion also fails to recognize that larger areas incorporate considerably less risk that communities of interest for mobile communications purposes will not be included in the same market.

In addition, a nationwide licensee will be able to deploy a system faster since it will not have to concern itself with issues regarding inter-system frequency coordination, roaming and compatibility with neighboring systems. By setting a de facto standard, a nationwide licensee promotes rapid investment by service providers and equipment manufacturers without the need

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<sup>72</sup> See, e.g., Comments of BellSouth at 30-31, Comments of GTE at 35.

<sup>73</sup> By comparison, the Major Trading Areas are based on an intensive and up-to-date study of physiology, population, distribution, newspaper circulation, economic activities, highway facilities, railroad service, suburban transportation and field reports. Rand McNally, 1992 Commercial Atlas and Marketing Guide at 36.



for Commission oversight and coordination.<sup>74</sup> On the other hand, the licensing of multiple markets with differing technical standards would require significant time and money to be spent on frequency and interference coordination as well as the negotiation of roaming agreements which would delay the deployment of PCS service in some areas. Because it promotes a single standard, a national license avoids these delays in deployment and speeds the achievement of ubiquitous coverage.

Finally, lower per subscriber overhead and capital costs associated with nationwide and MTA sized PCS assignments will make rural PCS more economically feasible, and revenues from heavy demand urban areas can be used to support rural operations. PCS service in a rural area will either be viable or it will not.<sup>75</sup> However, by minimizing overhead and associated costs, nationwide and MTA PCS providers enhance the viability of PCS service in rural areas.

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<sup>74</sup> Consider the impact the current debate in the cellular industry between CDMA and TDMA as the standard for use in digital cellular phones is having on the implementation and deployment of digital cellular service. See e.g., U.S. Cellular world faces Damaging Split as Code Division Standard is Endorsed, Computergram International (Dow Jones News Retrieval Service) (January 30, 1992); and The Digital Dilemma, Telephony, page 32 vol. 221 (October 14, 1991).

<sup>75</sup> The extensive consolidation that has occurred in the cellular industry along with the widespread use of switch sharing agreements suggests that many of the individual MSAs and RSAs were not large enough to support viable cellular systems on a stand-alone basis. In addition, a number of cellular licensees forfeited their licenses by failing to meet Commission mandated construction and coverage requirements while at least one, Cellular Information Systems, has filed for bankruptcy.

Even if a nationwide licensee does not provide service to an area itself, there are several ways that the area may still receive PCS. The regional licensee proposed by TWT and/or other competitors may fill the void. In addition, the nationwide licensee may cooperate with or "franchise" to a willing provider in the subject area. TWT submits that in view of the costly history of consolidation of MSAs and RSAs in the cellular industry, it would be more efficient to allow marketplace forces to determine whether, when and where any parts of a nationwide license would be sub-assigned or franchised. The Commission's regulation of land mobile communications allows the geographic division of market areas where the marketplace dictates it would be appropriate.<sup>76</sup> Having accepted the argument that partial assignments ensure efficient use of spectrum with a minimum of government intrusion,<sup>77</sup> the Commission should also allow partial assignments of a nationwide license.

(4) Financing Will Flow to the Industry.

Contrary to concerns expressed by some commenters, the economies of scale attendant to nationwide and MTA PCS systems

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<sup>76</sup> For example, many cellular markets were divided, primarily by wireline cellular operators, into various submarkets each with a different operator. See 47 C.F.R. § 22.903(a)(1). Similarly, the Commission allows SMR operators to assign parts of their authorizations to other entities. Amendment of Part 90, Subparts M and S, of the Commissions Rules, 3 FCC Rcd 1838 (1988). Moreover, Instructional Fixed Service (ITFS) and Operational Fixed Microwave radio owners are allowed to lease their excess capacity to third parties. See MMDS Spectrum Allocation, 94 F.C.C.2d 1203 (1983); and Authorization of Private Carrier Systems in the Private OFS Service, 57 R.R.2d 1486 (1985).

<sup>77</sup> Amendment of Part 90, 3 FCC Rcd at 1847.

will be much more attractive than small local systems in terms of obtaining capital financing for construction. It is questionable whether lenders would be more willing to lend to the licensee of a small market than of a larger market. As a result, it is not any more likely that small market licensees will have the financial ability to speed the commencement of services or invest in the equipment necessary to provide anything other than basic service offerings. In addition, many RSAs may be too small or thinly populated to support PCS systems characterized by high fixed costs.<sup>78</sup>

Furthermore, arguments that it is easy to combine markets ignores the history of cellular. Transaction costs of re-aggregation exert significant upward pressure on rates.<sup>79</sup> Additionally, the need to consolidate to create logical markets may have contributed significantly to the delay in the effective development of cellular.<sup>80</sup>

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<sup>78</sup> By allowing licensees to employ high power, high antenna cells, however, the Commission can help minimize these costs for rural areas.

<sup>79</sup> The Commission itself has recognized that the cost of re-aggregating mobile properties can be astronomical. See Notice at 5699 (total transaction costs to consolidate systems may be over one billion dollars).

<sup>80</sup> It has been estimated that delays in the deployment of cellular in effect cost the American economy upwards of \$86 billion. (Jeffrey H. Rohlfs, Charles L. Jackson and Tracey E. Kelley, Estimate of the Loss to the United States Caused by the FCC's Delay in Licensing Cellular Telecommunications, (November 8, 1991)).

(5) PCS Will Not have a Competitive Advantage.

Cellular service providers argue that they will be placed at a competitive disadvantage if a nationwide PCS license is granted. This is not a convincing argument, particularly coming from highly geographically-consolidated duopolists. Cellular is now an entrenched regional competitor which will surely compete forcefully with PCS on a number of different fronts including types of service, price, quality of service and coverage. The regional nature of cellular service is evidenced by the fact that the largest cellular telephone operator, McCaw Cellular Communications, Inc., provides cellular service to more than 25% of the nation's population and the cellular affiliates of the seven regional Bell Operating Companies in the aggregate provide service to more than 70% of the population.<sup>81</sup> Moreover, cellular operators often market themselves as national providers through the use of common service marks such as Cellular One<sub>sm</sub>, Follow Me Roaming<sub>sm</sub>, and Roam America<sub>sm</sub> and often speak in terms of providing a "seamless" nationwide service.<sup>82</sup> If coverage area was the only consideration in the wireless marketplace, then PCS would be placed at a competitive disadvantage if its licensed service areas are any smaller than today's consolidated cellular service areas.

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<sup>81</sup> Paul Kagan Associates, The 1992 Cellular Telephone Atlas (April, 1992).

<sup>82</sup> First Report and Order and Memorandum Opinion and Order on Reconsideration, 6 FCC Rcd 6185 (1991) at ¶27 (Cellular Applications for Unserved Areas).

V. THE FCC SHOULD ALLOW ONLY MODIFIED PARTICIPATION BY CELLULAR INTERESTS IN PCS LICENSES.

The Commission proposes to allow cellular operators to become PCS licensees outside their cellular service areas and seeks comment on whether they should be allowed to become PCS licensees within their cellular service areas.<sup>83</sup> The Commission also proposes to allow local telephone companies to become PCS licensees both within and outside their telephone service areas or, alternatively, essentially to "set-aside" approximately 10 MHz of PCS spectrum for "initial deployment of a PCS system integrated with a wireline local operating company."<sup>84</sup>

Other than in the case of national licensing, discussed below, TWT recommends the exclusion of cellular licensees from becoming PCS licensees where there is any substantial overlap with their cellular service areas. Cellular systems can already provide PCS within their existing bandwidth and many cellular companies have already announced their intentions to do so. Authorizing new service providers, rather than licensing additional spectrum to those who already have 25 MHz of clean spectrum with which to provide PCS, will encourage competition by new entrants, particularly to the benefit of consumers. Excluding existing providers to encourage new competition should

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<sup>83</sup> Notice at 5703.

<sup>84</sup> Notice at 5705-6.

also allay fears regarding the lack of competitiveness which has resulted from the cellular duopoly.<sup>85</sup>

Given that TWT supports wide-area licensing, exclusion of existing providers in their service areas can be effectively accomplished by excluding cellular entities from PCS licensing where there would be a substantial overlap in ownership and/or authorized service area. A slight overlap in ownership allows a presumption that cellular and PCS licensees in the same market area are not commonly controlled yet allows for greater participation in PCS by interested parties. Similarly, small overlaps in authorized service areas would limit the ability of such entities to engage in anti-competitive conduct.

TWT recommends that cellular companies not be excluded from nationwide licensing of PCS. The competitive concerns that underlie the exclusion of these companies from becoming PCS licensees within their own cellular service areas stem from market-specific considerations. In the case of nationwide licensing, TWT believes that individual cellular market considerations should not disqualify a cellular company from providing a nationwide PCS service. Licensing cellular companies for PCS in smaller markets where they provide cellular service or even in regions where they have consolidated cellular operations could significantly reduce mobile communications competition in

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<sup>85</sup> U.S. General Accounting Office, Telecommunications: Concerns About Competition in the Cellular Telephone Industry, pp 2,4 (July 1992); Investigation on the Commission's Own Motion Into the Regulation of Cellular Radiotelephone Utilities, Decision 92-10-026 (October 6, 1992).

those areas. However, since no cellular carrier has consolidated cellular operations on a nationwide basis, competition in the national mobile communications marketplace would not be reduced.

So long as they are not disqualified due to their cellular interests, local telephone companies should not be barred from becoming PCS licensees within their own telephone service areas. Such eligibility does not raise the same degree of competitive concerns as in the case of cellular -- wireline telephone service and PCS are not expected to be as fungible as cellular service and PCS. Local telephone companies can create certain network economies by using PCS spectrum to provide wireless local loops where that is more economically feasible than hard wire. Moreover, as recognized by the Commission, allowing telephone companies to provide PCS service within their current telephone service areas may encourage the development of wireline architectures optimized for PCS. The Commission should require that this more efficient network structure be made available to all PCS providers on the same basis as would be available to the telephone company.

TWT does not, however, support the Commission's proposal for effectively setting aside 10 MHz for local telephone company wireless local access operations.<sup>86</sup> The prospect of "economies of scope" between the wireless and wireline operations, even if actualized, does not justify guaranteeing local telephone companies a PCS license. The Commission has recently taken a

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<sup>86</sup> Notice at 5706-7.

series of actions intended to increase competition in the provision of interstate special access and switched transport.<sup>87</sup> The Commission should also follow pro-competitive policies with respect to the provision of wireless local access services. There is no basis for setting aside spectrum for telephone company provision of such services. Wireless local access services can be provided by PCS licensees, including telephone companies if selected, in a freely competitive market.

## VI. CONCLUSION

As discussed in its comments and these reply comments, TWT envisions a personal communications service that will enable consumers to acquire a low-cost lightweight phone or personal computing handset that may be used in all traditional consumer environments at prices affordable to the average consumer.

TWT continues to believe this vision can most effectively be made a reality by the expeditious assignment of at least 40 MHz of spectrum to each of two PCS licensees -- one to be licensed on a nationwide basis, the other to be licensed regionally. An adequate amount of spectrum is critical to the ability of a PCS licensee to maneuver around fixed microwave incumbents and still

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<sup>87</sup> See Expanded Interconnection with Local Telephone Company Facilities (Report and Order and Notice of Proposed Rulemaking), CC Docket No. 91-141, FCC 92-440, released October 19, 1992; Expanded Interconnection with Local Telephone Company Facilities (Second Notice of Proposed Rulemaking), CC Docket No. 91-141 (Transport Phases I and II), FCC 92-441, released October 16, 1992; Transport Rate Structure and Pricing (Report and Order and Further Notice of Proposed Rulemaking), CC Docket No. 91-213, FCC 92-442, released October 16, 1992.



deliver new and diverse services to the average consumer on a low cost, mass market basis.

In order to attain the competitive benefits which will result from the entry of PCS into the mobile communications marketplace, TWT favors the exclusion of cellular interests from the regional PCS licensing process in cases where there would be substantial overlap of ownership and/or service areas.

In sum, TWT supports the Commission's initiatives in the development of PCS, and urges the Commission to continue its aggressive efforts to expeditiously establish and help launch a competitive and economically viable Personal Communications Service which will provide low-cost new and diverse services to consumers.

Respectfully submitted,

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